

The Role of Emotional Intelligence in Fostering Job Engagement

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Abstract

The purpose of this study was to investigate the relationship between emotional intelligence and job engagement among dental faculty members of Kerala, India, as well as to examine whether this relationship varied based on certain demographic variables and general particulars. Data was collected from 353 dental faculties (226 from Private colleges and 127 from Government colleges) using a validated questionnaire. The findings revealed a significant positive relationship between emotional intelligence and job engagement, indicating that higher levels of emotional intelligence were associated with higher levels of job engagement. Furthermore, the relationship between emotional intelligence and job engagement was found to be moderated by the provision of the respondents for getting time bound cadre promotions. The study provides important insights into the factors that contribute to job engagement among dental faculties in Kerala, India, and highlights the importance of emotional intelligence in the workplace. Further research is needed to explore these findings in more detail and to address the limitations of the study.

Keywords: Dental Education, Emotional Intelligence, Job Engagement

1. Introduction

Emotional intelligence, is the capability of a person to identify, comprehend, and effectively manage one's own emotions, while also recognizing and appropriately responding to the emotions of others. This skill involves not only self-awareness and emotional regulation but also the ability to empathize and navigate complex emotional interactions, fostering healthier relationships and more constructive social engagements (1) (2) (3). It is considered an important factor in personal and professional success, as it can help individuals build better relationships, communicate effectively, and make correct decisions. In the workplace, an individual who is highly emotionally intelligent are commonly seen as efficient leaders and team builders, and they will be more effective in conflict management, motivation, and in building trust (4). As awareness of its significance grows, emotional intelligence is increasingly recognized as a key component of personal and professional development across various sectors, including education, business, and healthcare.

Emotional intelligence plays a critical role in medical education and has been shown to have a significant impact on various aspects of medical practice, including patient care, professional relationships, and personal well-being (5) (6) (4). Many literatures have shown the benefits of emotional intelligence in medical education and practice. For example, an article by (7) reviewed, how application of emotional intelligence helps in overcoming stress in medical faculties, students and doctors. Here are some of the

key benefits of developing emotional intelligence in medical education:

- **Enhanced care for patients:** Research indicates that medical professionals with elevated emotional intelligence are more adept at recognizing and addressing their patients' emotional needs, leading to improved patient care and stronger patient-provider relationships. This leads to increased patient satisfaction, improved treatment outcomes, and stronger therapeutic relationships (8).
- **Better professional relationships:** Medical professionals often work in teams, and emotional intelligence helps in building strong and effective relationships with colleagues. This can lead to improved collaboration, reduced conflict, and better patient care (9).
- **Stress free working:** Both medical education and practice can be highly demanding often leading to high levels of stress and burnout. Emotional intelligence helps medical professionals to manage their emotions effectively, thus reducing stress and burnout (10).
- **Enhanced communication skills:** Effective communication is a key aspect of medical practice, and emotional intelligence can help in improving communication skills. Medical professionals with higher levels of emotional intelligence are better able to understand and respond to the emotions of their patients and colleagues, leading to more effective communication and better patient care (11).

In the field of dentistry also, emotional intelligence is becoming increasingly recognized as a crucial component of successful patient care, professional relationships and job satisfaction (12). Dentists with higher levels of EI tend to have better patient relationships and communication, leading to increased patient satisfaction and loyalty. The present study aims to find how emotional intelligence of dental faculty members affects their job engagement level. As dental faculties teach students how to handle the patients and interact with patients who may be anxious, fearful, or in pain, the ability to understand and manage emotions is very important (13). Moreover, in a field that requires close collaboration with students and other dental professionals, emotional intelligence helps in building strong and effective relationships.

Job engagement refers to the degree of involvement, enthusiasm, and commitment an employee has toward their work and the organization they work for (14) (15). Engaged employees are typically more productive, more committed to their organization's goals, and more likely to stay with the organization (16) (17). They are also more likely to have positive attitudes towards their work and to take ownership of their role, rather than just going through the motions. They are also likely to experience a sense of autonomy and control over their work, as well as opportunities for growth and development. Job engagement is often thought of as a psychological state which includes vigour, dedication and absorption, that reflects the quality of an employee's relationship with their job (18) (19).

Job engagement is an important factor in the healthcare sector, as it is associated with better patient outcomes, higher job satisfaction, and lower staff turnover rates. Job engagement in the health sector refers to the extent to which healthcare workers feel emotionally invested in and committed to their work. Engaged healthcare workers are motivated to perform their duties to the best of their ability and are more likely to provide high-quality care to their patients. Various researches have shown that job engagement is positively associated with a range of outcomes in the healthcare sector (20). A systematic review and meta-analysis of registered nurse staffing levels and patient outcomes found that higher levels of nursing engagement were associated with better patient outcomes, such as lower rates of hospital-acquired infections and shorter hospital stay (21).

Job engagement in medical faculties is an important topic as it is related to the quality of education, research, and patient care. Many articles have highlighted the importance of job engagement in medical faculties and the need for supportive work environments to promote the well-being of medical

professionals and enhance the quality of education and patient care. A review article on job engagement among medical faculty highlights the factors that contribute to job engagement among medical school faculty, including autonomy, social support, and opportunities for professional development (22). Another study focuses on the role of motivation in medical education and highlights the importance of job engagement among medical faculty to enhance student learning and development (23). Job engagement is a critical component of well-being and job satisfaction for dental faculties as well. It can have a positive impact on the quality of education, patient care, workplace culture, and the dental profession as a whole. A study among dentists in US shows that most of them are highly engaged in their work (24).

Emotional intelligence and job engagement are closely related concepts. Research has shown that individuals with higher emotional intelligence tend to be more engaged in their jobs (25) (26). This is because emotional intelligence helps individuals to better understand their own motivations and to develop positive relationships with colleagues, which can lead to a greater sense of purpose and fulfilment in the workplace. Moreover, emotionally intelligent individuals tend to have better coping skills when faced with stress and challenges at work. They are more likely to manage their emotions in a healthy way, and they can effectively communicate with others to resolve conflicts, which can lead to a more positive work environment. By developing emotional intelligence skills, individuals can enhance their job engagement and enjoy a more fulfilling and rewarding career (27).

The primary aim of this study was to determine whether the emotional intelligence of dental faculty members influences their level of job engagement. The study also intends to compare the impact of emotional intelligence on job engagement based on gender, type of college, level of autonomy and provision for getting time bound cadre promotions.

2. Methods

A cross-sectional study was conducted using a validated questionnaire among dental faculties of various dental colleges across the state of Kerala in India. After getting clearance of institutional ethical committee (EC 101/2020), participants of the study were selected using stratified cluster sampling method. Out of the total 353 samples, 127 were those working in government dental colleges and 226 were those working in private dental colleges. The questionnaire in English included demographic details and certain general particulars. For assessing emotional intelligence, Wong and Law Emotional Intelligence Scale (WLEIS) (28) (29) was used. Job engagement level of the participants were assessed using Utrecht Work Engagement Scale (UWES) (30)(31).

2.1 Statistical Analyses

Descriptive statistics were represented as Mean \pm Standard Deviation and Median for continuous variables and frequency and percentage for categorical variables. Weighted averages were also calculated for the emotional intelligence and job engagement scales based on the scoring given to each response in the scale. Comparisons on Weighted average of total emotional intelligence and total job engagement were carried out using unpaired t test on the basis of type of college. Internal consistency of the scales and its subdomains were calculated using Cronbach's alpha. Both Kolmogorov Smirnov test and Shapiro Wilk test were used to find whether the data follows normal distribution.

Correlation between the domains and total scores of emotional intelligence and job engagement was assessed using Spearman's correlation test. Correlation of greater than 0.8 was considered as strong correlation while that of 0.4 to 0.7 was considered as moderate correlation. Correlation between emotional intelligence and job engagement were also found separately on the basis of study variables. Comparison

of correlation coefficients were done by converting the r values into z scores (Fisher’s r to z transformation) using MedCalc software (32).

3. Results

Descriptive analyses of demographic variables are summarised in Table 1. Out of the total 353 respondents of the study, 51% were male and 50% were of the age group of 35 to 50 years. Majority (85.8%) of them were married and majority of them (64%) were those working in private dental colleges. Majority of the respondents were having more than eight years of experience and annual income of majority of the respondents were less than 5 lakhs. Most of them were those enjoying partial autonomy at work and most of them receive time bound cadre promotions.

Table 1: Socio Demographic Characteristics of the Sample

| | Variables | Frequency | Percent |
|---|--------------------|------------------|----------------|
| Gender | Male | 172 | 48.7 |
| | Female | 181 | 51.3 |
| | Total | 353 | 100.0 |
| Age | 25-35 | 132 | 37.4 |
| | 35-50 | 176 | 49.9 |
| | Above 50 | 45 | 12.7 |
| | Total | 353 | 100.0 |
| Marital Status | Married | 302 | 85.6 |
| | Single | 44 | 12.5 |
| | Separated | 6 | 1.7 |
| | Total | 352 | 99.7 |
| Type of Dental College | Government | 127 | 35.9 |
| | Private | 226 | 64.1 |
| | Total | 353 | 100.0 |
| Experience | 1 – 4 years | 89 | 25.2 |
| | 4 – 8 years | 74 | 21.0 |
| | Less than one year | 44 | 12.5 |
| | More than 8 years | 146 | 41.4 |
| | Total | 353 | 100.0 |
| Annual Income | 5 – 10 Lakhs | 92 | 26.1 |
| | Less than 5 Lakhs | 132 | 37.4 |
| | More than 10 Lakhs | 129 | 36.5 |
| | Total | 353 | 100.0 |
| Level of autonomy at your work place | Complete | 52 | 14.7 |
| | Limited | 70 | 19.8 |
| | Partial | 231 | 65.4 |
| | Total | 353 | 100.0 |
| | No | 161 | 45.6 |

| | | | |
|--|-------|-----|-------|
| Do you get time bound cadre promotions? | Yes | 192 | 54.4 |
| | Total | 353 | 100.0 |

Medians, means, weighted means and standard deviations of all study variable dimensions are presented in table 2 and 3. Among the various domains of emotional intelligence, values of median, mean and weighted mean of self-emotion appraisal are high compared to other domains. Similarly, among the various domains of job engagement, values of median, mean and weighted mean of ‘Dedication’ are higher compared to other domains.

Table 2: Descriptive Statistics of Emotional Intelligence and its Sub Domains

| Emotional Intelligence | N | Mini-mum | Maxi-mum | Mean | SD | Median | Weighted mean |
|-------------------------------------|----------|-----------------|-----------------|-------------|-----------|---------------|----------------------|
| Self-Emotion Appraisal | 353 | 0.00 | 4.00 | 3.11 | 0.63 | 3.00 | 3.11 |
| Others Emotion Appraisal | 353 | 0.00 | 4.00 | 2.80 | 0.66 | 2.75 | 2.81 |
| Use of Emotions | 353 | 0.50 | 4.00 | 2.84 | 0.70 | 2.75 | 2.84 |
| Regulation of Emotions | 353 | 0.25 | 4.00 | 2.50 | 0.87 | 2.50 | 2.51 |
| Total Emotional Intelligence | 353 | 0.75 | 4.00 | 2.81 | 0.51 | 2.81 | 2.81 |

Table 3: Descriptive Statistics of Job Engagement and its Subdomains

| Job Engagement | N | Mini mum | Maxi mum | Mean | Std. Deviation | Median | Weighted mean |
|-----------------------------|----------|-----------------|-----------------|-------------|-----------------------|---------------|----------------------|
| Vigour | 353 | 0.17 | 6.00 | 4.03 | 1.06 | 4.00 | 4.33 |
| Dedication | 353 | 0.00 | 6.00 | 4.66 | 1.14 | 5.00 | 4.83 |
| Absorption | 353 | 0.50 | 6.00 | 4.05 | 1.11 | 4.00 | 4.20 |
| Total Job Engagement | 353 | 0.88 | 6.00 | 4.23 | 0.93 | 4.23 | 4.45 |

Comparisons on weighted average of total emotional intelligence based on the type of college did not show any statistically significant difference (Table 4). But there was a statistically significant difference in the weighted average of total job engagement of those working in government and private dental colleges (Table 5).

Table 4: Comparison of Weighted Average of Emotional Intelligence Based on Type of Organization

| Type of Dental College | | Weighted Mean | Std. Deviation | P value |
|------------------------|----------------------------------|---------------|----------------|---------|
| Government | Avg Total emotional intelligence | 2.9272 | .49936 | 0.560 |
| Private | Avg_Total emotional intelligence | 2.9078 | .50810 | |

Table 5: Comparison of Weighted Average of Job Engagement Based on Type of Organization

| Type of Dental College | | Weighted Mean | Std. Deviation | P value |
|------------------------|--------------------------|---------------|----------------|---------|
| Government | Avg_Total job engagement | 4.5339 | .77174 | 0.001 |
| Private | Avg_Total job engagement | 4.3805 | .91785 | |

Normality of the data is tested with two widely used methods such as Kolmogorov–Smirnov test and the Shapiro–Wilk test. P is less than 0.05 in all the cases (Table 6) which indicates that the data does not follow a normal distribution. Histograms and normality plots were also used to confirm the non-normality of data.

Table 6: Results of Normality Tests

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|---------------------------------|---------------------------------|-----|------|--------------|-----|------|
| | Statistic | df | Sig. | Statistic | Df | Sig. |
| Self-Emotion Appraisal | .127 | 353 | .000 | .923 | 353 | .000 |
| Others Emotion Appraisal | .101 | 353 | .000 | .970 | 353 | .000 |
| Use of Emotions | .116 | 353 | .000 | .963 | 353 | .000 |
| Regulation of Emotions | .107 | 353 | .000 | .970 | 353 | .000 |
| Vigour | .075 | 353 | .000 | .974 | 353 | .000 |
| Dedication | .145 | 353 | .000 | .910 | 353 | .000 |
| Absorption | .076 | 353 | .000 | .979 | 353 | .000 |

Cronbach’s α coefficients of the study variables are presented in Table 7. Cronbach’s alpha value is greater than 0.8 for Total Emotional Intelligence, Total Job Engagement and all its subdomains, which indicates that both the scales have very good reliability.

Table 7: Cronbach’s α Coefficients

| Emotional Intelligence | Cronbach’s α |
|------------------------------|---------------------|
| Self-Emotions Appraisal | 0.83 |
| Others’ Emotion Appraisal | 0.80 |
| Use of Emotions | 0.83 |
| Regulation of Emotions | 0.89 |
| Total Emotional Intelligence | 0.87 |
| Vigour | 0.84 |
| Dedication | 0.91 |
| Absorption | 0.86 |
| Total Job Engagement | 0.92 |

Correlation analysis (Table 8) between emotional intelligence and job engagement of dental faculty members reveals that there exists a moderate positive correlation between them and that the correlation is highly significant ($p < 0.05$). There also exists a highly significant positive correlation between all the sub domains of emotional intelligence with job engagement. Among the four sub domains, ‘Use of emotion’ have a moderate positive correlation and all other sub domains have a low positive correlation with job engagement of dental faculties.

Table 8: Correlation

| | | Average Vigour | Average Dedication | Average Absorption | Average Total Job engagement |
|--------------------------------------|-------------------------|----------------|--------------------|--------------------|------------------------------|
| Average Self Emotion Appraisal | Correlation Coefficient | .341** | .264** | .266** | .329** |
| | Sig. (2-tailed) | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Average Others Emotion Appraisal | Correlation Coefficient | .270** | .168** | .250** | .258** |
| | Sig. (2-tailed) | < 0.001 | .002 | < 0.001 | < 0.001 |
| Average Use of Emotion | Correlation Coefficient | .319** | .376** | .344** | .397** |
| | Sig. (2-tailed) | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Average Regulation of Emotion | Correlation Coefficient | .343** | .192** | .217** | .286** |
| | Sig. (2-tailed) | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Average Total Emotional intelligence | Correlation Coefficient | .446** | .346** | .347** | .432** |
| | Sig. (2-tailed) | < 0.001 | < 0.001 | < 0.001 | < 0.001 |

Comparisons on the impact of emotional intelligence on job engagement does not show any statistically significant difference between the type of college, gender and level of autonomy. But there is a statistically significant difference in the impact of emotional intelligence on job engagement for those having provision

for time bound cadre promotion and those who do not have provision for time bound cadre promotion (Table 9 and 10).

Table 9: Correlation Based on Provision for Time Bound Cadre Promotion

| | | Avg_Total Job engagement | |
|-----|----------------------------------|--------------------------|--------|
| No | Avg_Total Emotional intelligence | Correlation Coefficient | 0.306 |
| | | Sig. (2-tailed) | <0.001 |
| | | N | 161 |
| Yes | Avg_Total Emotional intelligence | Correlation Coefficient | 0.516 |
| | | Sig. (2-tailed) | <0.001 |
| | | N | 192 |

Table 10: Comparison of Correlation Coefficients

| | |
|--------------------|-------------|
| Difference | -0.21 |
| z statistic | -2.3632 |
| Significance level | P = 0.0181* |

Regression analysis conducted taking average total job engagement as the dependent variable and average total emotional intelligence as independent variable resulted in low r square value which indicate that the model fit was poor. But the variable was statistically significant in the regression mode ($p < 0.05$) which represent the mean change in the average total job engagement given a one-unit shift in the average total emotional intelligence. A multiple regression with average total job engagement as the dependent variable and the sub domains of emotional intelligence such as self-emotion appraisal, others emotion appraisal, use of emotions and regulation of emotions as dependent variables also resulted in poor model fit. One of the variables, ‘Use of emotion’ was statistically significant in the regression model.

4. Discussion

Dental faculties work closely with patients, students and colleagues on a daily basis. Effective communication is essential, particularly when teaching and explaining complex procedures or addressing patient concerns. Dental faculties with high emotional intelligence are better equipped to communicate clearly and empathetically. On the other hand, dental faculty members who are highly engaged in their work are more likely to provide high-quality education to dental students and deliver high-quality patient care. In this study, the relationship between the overall emotional intelligence and all its sub domains with job engagement of dental faculty members is studied. The results found that the variable emotional intelligence and its sub domains such as self-emotion appraisal, others emotion appraisal, use of emotion and regulation of emotion has a significant positive correlation with job engagement. This is in line with many previous studies in which, individuals with higher levels of emotional intelligence were more likely to be engaged in their work and had a stronger sense of commitment to their organization (21) (27). In the study, ‘The Moderating Role of Emotional Intelligence on the Relationship Between Job Resources and Employee Engagement’, the employees with high emotional intelligence were found to have high job

engagement as well (33). Another study (34) concluded that highly emotional intelligent employee show high engagement at work place. Emotional intelligence and job engagement are critical factors in the dental education sector as well. By developing emotional intelligence skills and fostering a culture of engagement, dental faculty members can improve patient outcomes, create positive learning environments, enhance professional satisfaction, and contribute to a more positive work environment.

Some of the previous studies have found that correlation between emotional intelligence and job engagement vary between women and men (35). But in the present study, the correlation did not show any significant difference on the basis of gender. Individual and group differences may play a significant role in such comparisons. However, one of the previous studies, 'Relationship between emotional intelligence and employee engagement with the moderating role of gender', (36) shows that gender is not a potential moderator impact between the two.

Comparison of correlation between emotional intelligence and job engagement based on whether the faculties were working on government or private dental colleges did not show any significant difference in the present study. There is only limited research on such comparison based on whether an organization is government or private. One study examined the relationship between emotional intelligence and job engagement in a sample of employees from both public and private sector organizations in the United Kingdom. They found that emotional intelligence was positively related to job engagement in both sectors, and there was no significant difference in the strength of this relationship between the two sectors (37).

The present study showed a statistically significant difference in the impact of emotional intelligence on job engagement for those having provision for time bound cadre promotion and those who do not have provision for time bound cadre promotion. It is possible that employees who receive time-bound promotions may experience higher job satisfaction, job performance, and lower turnover intention, which may in turn influence their level of job engagement. However, more research is needed to understand the complex interplay between emotional intelligence, job engagement, and time-bound promotions.

Regression analyses in this study resulted in low R^2 value and thus poor model fit. But one or more independent variables were still statistically significant. These results suggests that those variables may have a relationship with the dependent variable, even if it is not accurately captured by the overall model. In behavioural studies, the R^2 value in regression analysis is often low because human behaviour is complex and influenced by many factors that are difficult to capture with a few independent variables and also because of the difficulty in capturing all relevant factors that influence behaviour in a regression model. Thus, a regression model with a low R^2 value can still predict the dependent variable (38), but the accuracy of the predictions may be lower than that of a model with a higher R^2 value. However, it is important to note that the predictive power of a model with a low R-squared value may be limited compared to a model with a higher R-squared value. In addition, the presence of statistically significant independent variables in a model with low R-squared value suggests that the model may benefit from further exploration and refinement. Further research is required to explore other variables or factors that may be impact the outcome and improve the model fit. Additionally, it may be useful to replicate the study with a larger sample size or with a different approach to address the potential issues with the current model.

5. Conclusion

The main focus of the study was to find the impact of emotional intelligence on job engagement of dental faculties employed in both government and private dental colleges located in Kerala, India. The study results in a positive relationship between emotional intelligence and its sub domains with job engagement.

It also showed a difference in the impact between those who have and do not have provision for time bound cadre promotion. These findings suggest that emotional intelligence may be an important factor in promoting job engagement among dental faculties, and that demographic factors should be taken into account when designing interventions to improve job engagement in this population. Future research could investigate the specific cognitive, affective, and behavioural processes that link emotional intelligence and job engagement among dental faculties in Kerala. This could help to identify the specific factors that mediate or moderate this relationship. Further, a longitudinal study design could be used to follow a large sample of dental faculties over an extended period of time to examine how changes in emotional intelligence over time relate to changes in job engagement. This could provide more robust evidence of the causal relationship between emotional intelligence and job engagement.

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